AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An information recording medium comprising:

a first recording layer in which a first recoding track path for recording record information, is formed;

a second recording layer which is disposed on said first recording layer and in which a second recoding track path for recording the record information, is formed in an opposite direction to the first recording track path; and further,

a first buffer area (i) for preventing a recording or reproduction position from deviating from said first recording layer or said second recording layer, and (ii) for layer jump, on an outer circumferential edge portions of said first recording layer and said second recording layer,

at least one portion of said first buffer area being formed in advance as a pre-recording area, of embossed pits or pits obtained by irradiation of recording laser, and

said information recording medium further comprising a management area to record therein identification information indicating whether or not at least one portion of said first buffer area is formed in advance as the pre-recording area,

wherein the identification information is start / end address information indicating a start or end position of at least one portion of said first buffer area formed in advance.

2. (previously presented) The information recording medium according to claim 1, wherein said management area is a recording management area for managing the recording of the record information.

3. (original) The information recording medium according to claim 1, wherein

pre-format address information is recorded in said first recording layer and said second recording layer, and

identification information indicating that said first buffer area is formed in advance, is added to the pre-format address information.

4. (cancelled)

5. (original) The information recording medium according to claim 4, wherein the start / end address information indicates that said first buffer area is not formed in advance, when having a predetermined value.

6. (original) The information recording medium according to claim 1, wherein (i) at least one portion of said first buffer area is formed in advance of embossed pits, and (ii) a recording film capable of performing additional recording is laminated thereon.

7. (currently amended) An information recording apparatus (i-a) for recording a first portion of the record information along the first recording track path, and (ii-a) for recording a second portion of the record information, with a recording direction turned around, along the second recording track path, with respect to an information recording medium constructed such that a first recording layer has a first recording capacity and a second recording layer has a second recording capacity,

said information recording medium comprising:

the first recording layer in which a first recoding track path for recording record information, is formed;

the second recording layer which is disposed on said first recording layer and in which a second recoding track path for recording the record information, is formed in an opposite direction to the first recording track path; and further,

a first buffer area (i) for preventing a recording or reproduction position from deviating from said first recording layer or said second recording layer, and (ii) for layer jump, on an outer circumferential edge portions of said first recording layer and said second recording layer,

at least one portion of said first buffer area being formed in advance as a pre-recording area, of embossed pits or pits obtained by irradiation of recording laser, and

said information recording medium further comprising a management area to record therein identification information indicating whether or not at least one portion of said first buffer area is formed in advance as the pre-recording area,

wherein the identification information is start / end address information indicating a start or end position of at least one portion of said first buffer area formed in advance,

said information recording apparatus comprising:

a writing device capable of respectively writing the first portion and the second portion into said first recording layer and said second recording layer;

a calculating device for calculating a turn-around address on the first recording track path, in turning around from the first recording track path to the second recording track path, in a case (iii) where the first portion with an information amount which does not satisfy the first recording capacity, out of the record information, is written along the first recording track path, and (iv) where the second portion with an information amount which does not satisfy the second recording capacity is written along the second recording track path, on the basis of (v-1) a total information amount of the record information, (v-2) the start / end address information, (v-3) the first recording capacity, and (v-4) the second recording capacity; and

a controlling device for controlling said writing device, (i) to write the first portion along the first recording track path up to the calculated turn-around address, (ii) to add buffer data so as to form another portion of said first buffer area in said first recording layer and said second recording layer, and (iii) to write the second portion along the second recording track path from a correspondence address in said second recording layer corresponding to the calculated turn-around address in said first recording layer.

8. (original) The information recording apparatus according to claim 7, wherein said controlling device controls said writing device to write the buffer data, in order to form a second buffer area for preventing a recording or reproduction position from deviating from an inner circumferential edge portion of said second recording layer, in response to a finalize instruction for maintaining compatibility with a read-only or reproduce-only information recording medium.

9. (original) The information recording apparatus according to claim 7, wherein said controlling device controls said writing device to write the buffer data, in order to form a third buffer area located on an inner circumferential side of said first buffer area, on the basis of (i) the total information amount of the record information, (ii) the start / end address information, (iii) the first recording capacity, and (iv) the second recording capacity.

10. (original) The information recording apparatus according to claim 7, wherein said controlling device controls said writing device to write the buffer data, in order to form a fourth buffer area linked to said first buffer area, on the basis of (i) the total information amount of the record information, (ii) the start / end address information, (iii) the first recording capacity, and (iv) the second recording capacity.

11. (original) The information recording apparatus according to claim 7, wherein said controlling device controls said writing device to write the buffer data, in order to form a plurality of buffer areas located on an inner circumferential side of said first buffer area, on the basis of (i) the total information amount of the record information, (ii) the start / end address information, (iii) the first recording capacity, and (iv) the second recording capacity.

12. (currently amended) An information recording method in an information recording apparatus comprising a writing device (i-a) for recording a first portion of the record information along the first recording track path, and (ii-a) for recording a second portion of the record information, with a recording direction turned around, along the second recording track path, with respect to an information recording medium constructed such that a first recording layer has a first recording capacity and a second recording layer has a second recording capacity,

said information recording medium comprising:

the first recording layer in which a first recoding track path for recording record information, is formed;

the second recording layer which is disposed on said first recording layer and in which a second recoding track path for recording the record information, is formed in an opposite direction to the first recording track path; and further,

a first buffer area (i) for preventing a recording or reproduction position from deviating from said first recording layer or said second recording layer, and (ii) for layer jump, on an outer circumferential edge portions of said first recording layer and said second recording layer,

at least one portion of said first buffer area being formed in advance as a pre-recording area, of embossed pits or pits obtained by irradiation of recording laser, and

said information recording medium further comprising a management area to record therein identification information indicating whether or not at least one portion of said first buffer area is formed in advance as the pre-recording area,

wherein the identification information is start / end address information indicating a start or end position of at least one portion of said first buffer area formed in advance,

said information recording method comprising:

a calculating process of calculating a turn-around address on the first recording track path, in turning around from the first recording track path to the second recording track path, in a case (iii) where the first portion with an information amount which does not satisfy the first recording capacity, out of the record information, is written along the first recording track path, and (iv) where the second portion with an information amount which does not satisfy the second recording capacity is written along the second recording track path, on the basis of (v-1) a total information amount of the record information, (v-2) the start / end address information, (v-3) the first recording capacity, and (v-4) the second recording capacity; and

a controlling process of controlling said writing device, (i) to write the first portion along the first recording track path up to the calculated turn-around address, (ii) to add buffer data so as to form another portion of said first buffer area in said first recording layer and said second recording layer, and (iii) to write the second portion along the second recording track path from a correspondence address in said second recording layer corresponding to the calculated turn-around address in said first recording layer.

13. (cancelled)